

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	0	7,7-diphenyl-2,4,6-heptatrienoic	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L2	0	(Histone adj deacetylase) and (("562/495").CCLS.)	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L3	0	("I7andI7").PN.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L4	0	heptatrieno\$ and (("562/491").CCLS.)	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L5	0	heptatrien\$ and (("562/491").CCLS.)	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L6	0	(dodecen\$ and insecticid\$) and "2005271"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L7	300	(514/559).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L8	953	(514/562).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L9	444	(514/564).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L10	750	(514/570).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L11	196	(514/571).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L12	0	7,7-diphenyl-2,4,6-heptatrienoic	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L13	0	(Histone adj deacetylase) and (("562/495").CCLS.)	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40

## EAST Search History

L14	0	("I7andI17").PN.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L15	0	heptatrieno\$ and (("562/491").CCLS.)	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L16	0	heptatrien\$ and (("562/491").CCLS.)	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L17	0	(dodecen\$ and insecticid\$) and "2005271"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L18	300	(514/559).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L19	953	(514/562).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L20	444	(514/564).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L21	750	(514/570).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L22	196	(514/571).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L23	0	7,7-diphenyl-2,4,6-heptatrienoic	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L24	0	(Histone adj deacetylase) and ("562/495").CCLS.)	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L25	0	("I7andI17").PN.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L26	0	heptatrieno\$ and (("562/491").CCLS.)	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40

## EAST Search History

L27	0	heptatrien\$ and (("562/491").CCLS.)	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L28	0	(dodecen\$ and insecticid\$) and "2005271"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L29	300	(514/559).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L30	953	(514/562).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L31	444	(514/564).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L32	750	(514/570).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L33	196	(514/571).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L34	0	7,7-diphenyl-2,4,6-heptatrienoic	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L35	0	(Histone adj deacetylase) and (("562/495").CCLS.)	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L36	0	("I7andI17").PN.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L37	0	heptatrieno\$ and (("562/491").CCLS.)	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L38	0	heptatrien\$ and (("562/491").CCLS.)	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L39	0	(dodecen\$ and insecticid\$) and "2005271"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40

## EAST Search History

L40	300	(514/559).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L41	953	(514/562).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L42	444	(514/564).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L43	750	(514/570).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L44	196	(514/571).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L45	3	heptatrienoic and histone	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L46	3	7-phenyl-2,4,6-heptatrienoic	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L47	3	histone and heptatrieno\$	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L48	1	"4621099".URPN.	USPAT	OR	ON	2007/05/23 05:40
L49	3	heptatrienoic and histone	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L50	3	7-phenyl-2,4,6-heptatrienoic	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L51	3	histone and heptatrieno\$	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L52	1	"4621099".URPN.	USPAT	OR	ON	2007/05/23 05:40
L53	3	heptatrienoic and histone	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L54	3	7-phenyl-2,4,6-heptatrienoic	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40

## EAST Search History

L55	3	histone and heptatrieno\$	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L56	1	"4621099".URPN.	USPAT	OR	ON	2007/05/23 05:40
L57	3	heptatrienoic and histone	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L58	3	7-phenyl-2,4,6-heptatrienoic	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L59	3	histone and heptatrieno\$	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L60	1	"4621099".URPN.	USPAT	OR	ON	2007/05/23 05:40
L61	2	("4663336").PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L62	2	"53101527".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L63	82	heptatrieno\$	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L64	107	(Histone adj deacetylase) and hydroxamic	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L65	3	"2001038322".pn.	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L66	3	"9814424".pn.	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L67	56	heptatrienoic	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L68	5	7-phenyl-2,4,6-heptatrieno\$	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L69	2	"5037813".pn.	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L70	2	"4371516".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40

## EAST Search History

L71	2	"4371516".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L72	16	"2005271"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L73	2	"5747537".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L74	3	"9929640".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L75	2	"53101527".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L76	2	"9827162".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L77	2	"4810299".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L78	2	"4621099".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L79	2	"5459149".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L80	5	"2849466" .pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L81	2	"53101527".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L82	82	heptatrieno\$	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40

## EAST Search History

L84	3	"2001038322".pn.	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L85	3	"9814424".pn.	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L86	56	heptatrienoic	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L87	5	7-phenyl-2,4,6-heptatrieno\$	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L88	2	"5037813".pn.	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L89	2	"4371516".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L90	2	"4371516".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L91	16	"2005271"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L92	2	"5747537".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L93	3	"9929640".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L94	2	"53101527".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L95	2	"9827162".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L96	2	"4810299".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40

## EAST Search History

L97	2	"4621099".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L98	2	"5459149".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L99	5	"2849466" .pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L100	2	("6720445").PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L101	2	("4663336").PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L102	2	"53101527".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L103	82	heptatrieno\$	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L104	107	(Histone adj deacetylase) and hydroxamic	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L105	3	"2001038322".pn.	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L106	3	"9814424".pn.	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L107	56	heptatrienoic	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L108	5	7-phenyl-2,4,6-heptatrieno\$	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L109	2	"5037813".pn.	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40



## EAST Search History

L110	2	"4371516".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L111	2	"4371516".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L112	16	"2005271"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L113	2	"5747537".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L114	3	"9929640".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L115	2	"53101527".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L116	2	"9827162".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L117	2	"4810299".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L118	2	"4621099".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L119	2	"5459149".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L120	5	"2849466".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L121	2	"53101527".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40

## EAST Search History

L122	82	heptatrieno\$	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L123	107	(Histone adj deacetylase) and hydroxamic	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L124	3	"2001038322".pn.	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L125	3	"9814424".pn.	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L126	56	heptatrienoic	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L127	5	7-phenyl-2,4,6-heptatrieno\$	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L128	2	"5037813".pn.	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L129	2	"4371516".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L130	2	"4371516".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L131	16	"2005271"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L132	2	"5747537".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L133	3	"9929640".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L134	2	"53101527".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40

## EAST Search History

L135	2	"9827162".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L136	2	"4810299".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L137	2	"4621099".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L138	2	"5459149".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L139	5	"2849466".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L140	162	oxamflatin	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L141	162	oxamflatin	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L142	242	(562/491).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L143	242	(562/491).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L144	242	(562/491).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L145	242	(562/491).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L146	325	(562/495).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40

## EAST Search History

L147	325	(562/495).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L148	381	\$pentynoic	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L149	325	(562/495).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L150	325	(562/495).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L151	381	\$pentynoic	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L152	515	dodecen\$ and insecticid\$	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L153	515	dodecen\$ and insecticid\$	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L154	515	dodecen\$ and insecticid\$	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L155	515	dodecen\$ and insecticid\$	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L156	607	heptatrien\$	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L157	607	heptatrien\$	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L158	607	heptatrien\$	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L159	607	heptatrien\$	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40

## EAST Search History

L160	972	Histone adj deacetylase	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L164	7470	hydroxamic	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L165	5542	histone	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L166	18787	dodecen\$	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L167	80384	insecticid\$	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L168	7470	hydroxamic	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L169	5542	histone	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L170	18787	dodecen\$	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L171	80384	insecticid\$	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L172	7470	hydroxamic	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L173	5542	histone	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L174	18787	dodecen\$	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L175	80384	insecticid\$	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L176	7470	hydroxamic	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40

## EAST Search History

L177	5542	histone	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L178	18787	dodecen\$	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L180	0	7,7-diphenyl-2,4,6-heptatrienoic	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L181	3	heptatrienoic and histone	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L182	3	7-phenyl-2,4,6-heptatrienoic	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L183	196	(514/571).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L184	750	(514/570).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L185	196	(514/571).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L186	0	7,7-diphenyl-2,4,6-heptatrienoic	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L187	2	("4663336").PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L188	1	"4621099".URPN.	USPAT	OR	ON	2007/05/23 05:40
L189	515	dodecen\$ and insecticid\$	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L190	515	dodecen\$ and insecticid\$	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L191	3	heptatrienoic and histone	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40

## EAST Search History

L192	3	7-phenyl-2,4,6-heptatrienoic	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L193	3	histone and heptatrieno\$	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L194	0	("I7andI17").PN.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L195	0	heptatrieno\$ and (("562/491").CCLS.)	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L196	0	heptatrien\$ and (("562/491").CCLS.)	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L197	3	heptatrienoic and histone	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L198	3	7-phenyl-2,4,6-heptatrienoic	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L199	3	histone and heptatrieno\$	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L200	3	heptatrienoic and histone	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L201	300	(514/559).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L202	196	(514/571).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L203	0	7,7-diphenyl-2,4,6-heptatrienoic	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L204	0	(Histone adj deacetylase) and (("562/495").CCLS.)	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L205	444	(514/564).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40

## EAST Search History

L206	0	(Histone adj deacetylase) and ("562/495").CCLS.)	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L207	0	("I7andI17").PN.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L208	0	heptatrieno\$ and ("562/491").CCLS.)	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L209	300	(514/559).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L210	0	("I7andI17").PN.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L211	0	heptatrieno\$ and ("562/491").CCLS.)	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L212	0	(dodecen\$ and insecticid\$) and "2005271"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L213	0	heptatrieno\$ and ("562/491").CCLS.)	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L214	0	heptatrien\$ and ("562/491").CCLS.)	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L215	1	"4621099".URPN.	USPAT	OR	ON	2007/05/23 05:40
L216	1	"4621099".URPN.	USPAT	OR	ON	2007/05/23 05:40
L217	0	heptatrien\$ and ("562/491").CCLS.)	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L218	300	(514/559).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L219	82	heptatrieno\$	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L220	0	(dodecen\$ and insecticid\$) and "2005271"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40



## EAST Search History

L221	0	("I7andI17").PN.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L222	3	histone and heptatrieno\$	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L223	953	(514/562).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L224	444	(514/564).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L225	3	histone and heptatrieno\$	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L226	0	(dodecen\$ and insecticid\$) and "2005271"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L227	953	(514/562).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L228	0	(dodecen\$ and insecticid\$) and "2005271"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L229	750	(514/570).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L230	0	7,7-diphenyl-2,4,6-heptatrienoic	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L231	0	(Histone adj deacetylase) and (("562/495").CCLS.)	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L232	953	(514/562).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L233	444	(514/564).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40

## EAST Search History

L234	1	"4621099".URPN.	USPAT	OR	ON	2007/05/23 05:40
L235	750	(514/570).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L236	196	(514/571).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L237	2	"53101527".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L238	0	heptatrien\$ and (("562/491").CCLS.)	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L239	300	(514/559).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L240	0	(Histone adj deacetylase) and (("562/495").CCLS.)	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L241	953	(514/562).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L242	444	(514/564).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L243	750	(514/570).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L244	3	7-phenyl-2,4,6-heptatrienoic	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L245	107	(Histone adj deacetylase) and hydroxamic	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L246	3	"2001038322".pn.	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L247	3	"9814424".pn.	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40

## EAST Search History

L248	56	heptatrienoic	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L249	5	7-phenyl-2,4,6-heptatrieno\$	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L250	2	"4371516".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L251	2	"5747537".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L252	2	"5459149".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L253	5	"2849466" .pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L254	2	"53101527".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L255	2	"4810299".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L256	3	"9929640".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L257	2	"53101527".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L258	2	"9827162".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L259	162	oxamflatin	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L260	2	"5037813".pn.	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40

## EAST Search History

L261	82	heptatrieno\$	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L262	3	"2001038322".pn.	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L263	3	"9814424".pn.	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L264	56	heptatrienoic	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L265	5	7-phenyl-2,4,6-heptatrieno\$	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L266	2	"5037813".pn.	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L267	2	"4371516".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L268	2	"4371516".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L269	16	"2005271"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L270	2	"5747537".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L271	3	"9929640".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L272	2	"53101527".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L273	2	"9827162".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40

## EAST Search History

L274	5	"2849466" .pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L275	2	("6720445").PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L276	82	heptatrieno\$	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L277	107	(Histone adj deacetylase) and hydroxamic	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L278	3	"2001038322".pn.	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L279	3	"9814424".pn.	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L280	56	heptatrienoic	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L281	5	7-phenyl-2,4,6-heptatrieno\$	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L282	2	"5037813".pn.	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L283	2	"4621099".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L284	2	"5459149".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L285	5	"2849466" .pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L286	2	"53101527".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L287	82	heptatrieno\$	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40

## EAST Search History

L288	107	(Histone adj deacetylase) and hydroxamic	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L289	3	"2001038322".pn.	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L290	3	"9814424".pn.	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L291	56	heptatrienoic	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L292	5	7-phenyl-2,4,6-heptatrieno\$	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L293	2	"5037813".pn.	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L294	2	"4371516".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L295	2	"4371516".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L296	16	"2005271"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L297	2	"4371516".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L298	16	"2005271"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L299	16	"2005271"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L300	2	"5747537".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40

## EAST Search History

L301	3	"9929640".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L302	2	"53101527".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L303	2	"9827162".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L304	2	"4810299".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L305	2	"5747537".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L306	3	"9929640".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L307	2	"9827162".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L308	2	"4810299".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L309	2	"4621099".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L310	2	"5459149".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L311	5	"2849466".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L312	162	oxamflatin	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40

## EAST Search History

L313	2	"4621099".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L314	107	(Histone adj deacetylase) and hydroxamic	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L315	2	"4810299".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L316	2	"4621099".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L317	2	"5459149".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L318	2	("4663336").PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L319	2	"53101527".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L320	2	"4371516".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L321	2	"4371516".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L322	2	"53101527".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L323	242	(562/491).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L324	242	(562/491).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40



## EAST Search History

L325	242	(562/491).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L326	242	(562/491).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L327	325	(562/495).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L328	381	\$pentynoic	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L329	325	(562/495).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L330	325	(562/495).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L331	325	(562/495).CCLS.	USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L332	381	\$pentynoic	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L333	515	dodecen\$ and insecticid\$	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L334	515	dodecen\$ and insecticid\$	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/05/23 05:40
L335	607	heptatrien\$	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L336	607	heptatrien\$	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L337	607	heptatrien\$	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40

## EAST Search History

L338	607	heptatrien\$	USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 05:40
L339	2	("5010189").PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 07:41
L340	2	("4513005").PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 07:53
L341	3	("4405810").PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 10:14
L342	11	("5196147").PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/05/23 10:14

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NEWS	18	MAR 15	WPIDS/WPIX enhanced with new FRAGHITSTR display format
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NEWS	21	MAR 22	LWPI reloaded
NEWS	22	MAR 30	RDISCLOSURE reloaded with enhancements
NEWS	23	APR 02	JICST-EPLUS removed from database clusters and STN
NEWS	24	APR 30	GENBANK reloaded and enhanced with Genome Project ID field
NEWS	25	APR 30	CHEMCATS enhanced with 1.2 million new records
NEWS	26	APR 30	CA/CAPLUS enhanced with 1870-1889 U.S. patent records
NEWS	27	APR 30	INPADOC replaced by INPADOCDB on STN
NEWS	28	MAY 01	New CAS web site launched
NEWS	29	MAY 08	CA/CAPLUS Indian patent publication number format defined
NEWS	30	MAY 14	RDISCLOSURE on STN Easy enhanced with new search and display fields
NEWS	31	MAY 21	BIOSIS reloaded and enhanced with archival data
NEWS	32	MAY 21	TOXCENTER enhanced with BIOSIS reload
NEWS	33	MAY 21	CA/CAPLUS enhanced with additional kind codes for German patents
NEWS	34	MAY 22	CA/CAPLUS enhanced with IPC reclassification in Japanese patents
NEWS EXPRESS			NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.
NEWS HOURS			STN Operating Hours Plus Help Desk Availability
NEWS LOGIN			Welcome Banner and News Items
NEWS IPC8			For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic..

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FILE 'HOME' ENTERED AT 05:48:30 ON 23 MAY 2007

=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 05:49:15 ON 23 MAY 2007

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STRUCTURE FILE UPDATES: 22 MAY 2007 HIGHEST RN 935655-41-7

DICTIONARY FILE UPDATES: 22 MAY 2007 HIGHEST RN 935655-41-7

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TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

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REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=> e HEXANOIC ACID, 6-((1-METHYL-5-NITRO-1H-IMIDAZOL-2-YL)THIO)-/CN

E1 1 HEXANOIC ACID, 6-((1-METHYL-3-(2-((2-METHYL-1-OXO-2-PROPENYL)OXY)ETHOXY)-3-OXO-1-PROPENYL)AMINO)-/CN

E2 1 HEXANOIC ACID, 6-((1-METHYL-3-OXO-1-BUTENYL)OXY)-, ETHYL ESTER/CN

E3 1 --> HEXANOIC ACID, 6-((1-METHYL-5-NITRO-1H-IMIDAZOL-2-YL)THIO)-/CN

E4 1 HEXANOIC ACID, 6-((1-METHYLCYCLOHEXADECYL)OXY)-/CN

E5 1 HEXANOIC ACID, 6-((1-METHYLCYCLOHEXADECYL)OXY)-, METHYL ESTER/CN

E6 1 HEXANOIC ACID, 6-((1-METHYLETHOXY)AMINO)-4,6-DIOXO-/CN

E7 1 HEXANOIC ACID, 6-((1-METHYLETHYL)(3-METHYL-5-(2-(4-PYRIDINYL)AMINO)ETHOXY)BENZOYL)AMINO)-/CN

E8 1 HEXANOIC ACID, 6-((1-METHYLETHYL)(3-METHYL-5-(2-(4-PYRIDINYL)AMINO)ETHOXY)BENZOYL)AMINO)-, MONO(TRIFLUOROACETATE)/CN

E9 1 HEXANOIC ACID, 6-((1-METHYLETHYL)AMINO)-/CN

E10 1 HEXANOIC ACID, 6-((1-METHYLETHYL)PHENYLAMINO)-6-OXO-/CN

E11 1 HEXANOIC ACID, 6-((1-METHYLETHYL)THIO)-6-OXO-/CN

E12 1 HEXANOIC ACID, 6-((1-METHYLPROPYL)AMINO)-/CN

=> \e3

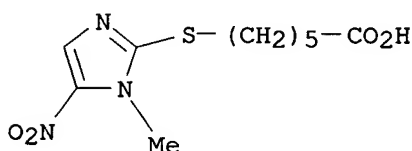
L1 3914 \E3  
(E3)

=> e3

L2 1 "HEXANOIC ACID, 6-((1-METHYL-5-NITRO-1H-IMIDAZOL-2-YL)THIO)-"/CN

=> d 12

L2 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN  
RN 64444-77-5 REGISTRY  
ED Entered STN: 16 Nov 1984  
CN Hexanoic acid, 6-[(1-methyl-5-nitro-1H-imidazol-2-yl)thio]- (9CI)  
(CA INDEX NAME)  
MF C10 H15 N3 O4 S  
LC STN Files: BEILSTEIN\*, CA, CAPLUS  
(\*File contains numerically searchable property data)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> logoff hold

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	14.10	14.31

SESSION WILL BE HELD FOR 120 MINUTES  
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PASSWORD:

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FILE 'REGISTRY' ENTERED AT 07:40:43 ON 23 MAY 2007  
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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	14.10	14.31

=> logoff hold

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
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# 2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

25.50

25.71

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FILE COVERS 1907 - 23 May 2007 VOL 146 ISS 22

FILE LAST UPDATED: 22 May 2007 (20070522/ED)

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<http://www.cas.org/infopolicy.html>

=> 13

L4 2 L3

=> d 14 1-2 ti fbib abs

L4 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN

TI Fragmentation of 2-benzyl-3-(tosylazo)cyclohex-2-en-1-one to methyl 7-phenyl-5-heptynoate

AN 1986:478607 CAPLUS

DN 105:78607

TI Fragmentation of 2-benzyl-3-(tosylazo)cyclohex-2-en-1-one to methyl 7-phenyl-5-heptynoate

AU Friary, R.; Seidl, V.

CS Schering Res., Schering-Plough Corp., Bloomfield, NJ, 07003, USA

SO Journal of Organic Chemistry (1986), 51(16), 3214-15

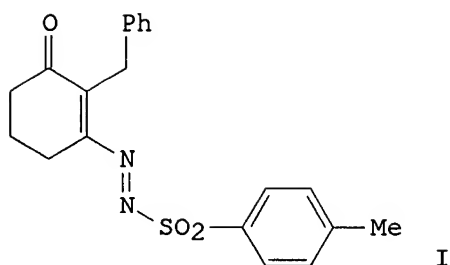
CODEN: JOCEAH; ISSN: 0022-3263

DT Journal

LA English

OS CASREACT 105:78607

GI



AB Treatment of title cyclohexenone (I) with NaOMe in MeOH gave  
PhCH<sub>2</sub>C.tplbond.C(CH<sub>2</sub>)<sub>3</sub>CO<sub>2</sub>Me.

L4 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN

TI 7-Aryl-5-heptynoic acids

AN 1984:22419 CAPLUS

DN 100:22419

TI 7-Aryl-5-heptynoic acids

IN Blythin, David; Green, Michael J.

PA Schering Corp., USA

SO U.S., 7 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	US 4405810	A	19830920	US 1982-388060	19820614
				US 1982-388060	19820614

OS CASREACT 100:22419; MARPAT 100:22419

AB RCH<sub>2</sub>C.tplbond.C(CH<sub>2</sub>)<sub>3</sub>CO<sub>2</sub>R<sub>1</sub> [I; R = (un)substituted Ph, naphthyl; R<sub>1</sub> = H, alkyl, Ph], useful as antiallergy and antiinflammatory agents (no data), were prepared Thus, a solution of HC.tplbond.C(CH<sub>2</sub>)<sub>3</sub>CO<sub>2</sub>H in DMF was treated with NaH and then with PhCH<sub>2</sub>Br to give I (R = Ph, R<sub>1</sub> = H).

=> logoff hold

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
7.07	32.78

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
-1.56	-1.56

CA SUBSCRIBER PRICE

SESSION WILL BE HELD FOR 120 MINUTES

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PASSWORD:

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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	7.07	32.78

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-1.56	-1.56

=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	7.54	33.25

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-1.56	-1.56

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DICTIONARY FILE UPDATES: 22 MAY 2007 HIGHEST RN 935655-41-7

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experimental property data in the original document. For information  
on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=> e 7-phenylheptenoic acid

E1	1	7-ALANINE/BI
E2	1	7-METHOXY-3-INDOLYLMETHYL/BI
E3	0 -->	7-PHENYLHEPTENOIC ACID/BI
E4	107	7.0/BI
E5	2	7.0,AL/BI
E6	1	7.0,BI/BI
E7	2	7.0,C/BI
E8	1	7.0,CO/BI
E9	8	7.0,CU/BI
E10	5	7.0,FE/BI
E11	4	7.0,MG/BI
E12	10	7.0,MN/BI

=> e 7-phenyl heptenoic acid/cn

E1	1	7-PHENOXY-SULFONYL-3-INDENECARBOXYLIC ACID/CN
E2	1	7-PHENOXYTRICYCLO(4.2.2.0 <sup>2</sup> ,5)DEC-7-ENE-3,4,9,10-TETRACARBOXYLIC DIANHYDRIDE/CN

E3	0	-->	7-PHENYL HEPTENOIC ACID/CN
E4	1		7-PHENYL-1,2,3,4-TETRAHYDROISOQUINOLINE/CN
E5	1		7-PHENYL-1,2,3,4-TETRAHYDROQUINOLINE/CN
E6	1		7-PHENYL-1,2,4-TRIAZOLO(4,3-B)PYRIDAZINE/CN
E7	1		7-PHENYL-1,2-NAPHTHALENEDICARBOXYLIC ANHYDRIDE/CN
E8	1		7-PHENYL-1,3,3-TRIMETHYLSPIRO(INDOLINE-2,3'-(3H)-NAPHTHO(2,1-B)PYRAN)/CN
E9	1		7-PHENYL-1,3,5-CYCLOHEPTATRIENE/CN
E10	1		7-PHENYL-1,3-DIAZASPIRO(4.4)NONANE-2,4-DIONE/CN
E11	1		7-PHENYL-1,4,6-ANDROSTATRIENE-3,17-DIONE/CN
E12	1		7-PHENYL-1,6-DIAZABICYCLO(4.1.0)HEPTANE/CN

=> e 7-phenylheptenoic acid/cn

E1	1		7-PHENYLHEPTANOYLHYDROXAMIC ACID/CN
E2	1		7-PHENYLHEPTATRIEN-2,4,6-AL-1/CN
E3	0	-->	7-PHENYLHEPTENOIC ACID/CN
E4	1		7-PHENYLHEPTYL 4-HYDROXYBENZOATE/CN
E5	1		7-PHENYLHEPTYL ALCOHOL/CN
E6	1		7-PHENYLHEPTYL BROMIDE/CN
E7	1		7-PHENYLHEPTYL CHLORIDE/CN
E8	1		7-PHENYLHEPTYL METHACRYLATE/CN
E9	1		7-PHENYLHEPTYL SODIUM SULFATE/CN
E10	1		7-PHENYLHEPTYLAMINE/CN
E11	1		7-PHENYLHEXADECANE/CN
E12	1		7-PHENYLIMIDAZO(1,2-A)PYRIDINE/CN

=> e 7-phenyl-2-heptenoic acid/cn

E1	1		7-PHENYL-2-ANILINO-1-PHENYL-1,8-NAPHTHYRIDIN-4(1H)-ONE/CN
E2	1		7-PHENYL-2-HEPTANONE/CN
E3	0	-->	7-PHENYL-2-HEPTENOIC ACID/CN
E4	1		7-PHENYL-2-NAPHTHALENOL/CN
E5	1		7-PHENYL-2-NAPHTHOL/CN
E6	1		7-PHENYL-2-OCTANONE/CN
E7	1		7-PHENYL-2-OXA-7-AZABICYCLO(3.2.0)HEPTAN-6-ONE/CN
E8	1		7-PHENYL-2-OXEPANONE/CN
E9	1		7-PHENYL-3,4-DIHYDRO-1(2H)-NAPHTHALENONE/CN
E10	1		7-PHENYL-3,6-DIOXAHEPTYL P-TOLUENESULFONATE/CN
E11	1		7-PHENYL-3,6-DIOXAHEPTYL TOSYLATE/CN
E12	1		7-PHENYL-3-(2-(4-PYRIDYL)-1,3-THIAZOL-4-YL)-1,2,3,4-TETRAHYDROQUINAZOLIN-2-ONE/CN

=> e 7-phenyl-2-octenoic acid/cn

E1	1		7-PHENYL-2-NAPHTHOL/CN
E2	1		7-PHENYL-2-OCTANONE/CN
E3	0	-->	7-PHENYL-2-OCTENOIC ACID/CN
E4	1		7-PHENYL-2-OXA-7-AZABICYCLO(3.2.0)HEPTAN-6-ONE/CN
E5	1		7-PHENYL-2-OXEPANONE/CN
E6	1		7-PHENYL-3,4-DIHYDRO-1(2H)-NAPHTHALENONE/CN
E7	1		7-PHENYL-3,6-DIOXAHEPTYL P-TOLUENESULFONATE/CN
E8	1		7-PHENYL-3,6-DIOXAHEPTYL TOSYLATE/CN
E9	1		7-PHENYL-3-(2-(4-PYRIDYL)-1,3-THIAZOL-4-YL)-1,2,3,4-TETRAHYDROQUINAZOLIN-2-ONE/CN
E10	1		7-PHENYL-3-(3-TRIFLUOROMETHYLPHENYL)-4,6,7,8-TETRAHYDRO-1H-CINNOLIN-5-ONE/CN
E11	1		7-PHENYL-3-(3-TRIFLUOROMETHYLPHENYL)-7,8-DIHYDRO-6H-CINNOLIN-5-ONE/CN
E12	1		7-PHENYL-3-(PYRAZIN-2-YL)-6-(1H-1,2,4-TRIAZOL-3-YLMETHOXY)-1,2,4-TRIAZOLO(4,3-B)PYRIDAZINE/CN

=> logoff hold

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

1.80

35.05

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
CA SUBSCRIBER PRICE	ENTRY	SESSION
	0.00	-1.56

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PASSWORD:

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FILE 'REGISTRY' ENTERED AT 08:22:06 ON 23 MAY 2007  
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COST IN U.S. DOLLARS	SINCE FILE	TOTAL
FULL ESTIMATED COST	ENTRY	SESSION
	1.80	35.05

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
CA SUBSCRIBER PRICE	ENTRY	SESSION
	0.00	-1.56

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
FULL ESTIMATED COST	ENTRY	SESSION
	2.25	35.50

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
CA SUBSCRIBER PRICE	ENTRY	SESSION
	0.00	-1.56

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FILE LAST UPDATED: 22 May 2007 (20070522/ED)

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=> eneyne

47 ENEYNE  
6 ENEYNES  
L5 50 ENEYNE  
(ENEYNE OR ENEYNES)

=> d 15 40-50 ti

L5 ANSWER 40 OF 50 CAPLUS COPYRIGHT 2007 ACS on STN  
TI Biradical formation from acyclic conjugated eneyne-allene system related to neocarzinostatin and esperamicin-calichemicin

L5 ANSWER 41 OF 50 CAPLUS COPYRIGHT 2007 ACS on STN  
TI The synthesis of trans-(Me3CO)3W.tplbond.CCH:CHC.tplbond.W(OCMe3)3, cis,cis-(Me3CO)3W.tplbond.CCH:CHC.tplbond.CCH:CHC.tplbond.W(OCMe3)3, and related metal-capped ene-ynes, and evaluation of them as catalysts for preparing polydiacetylenes

L5 ANSWER 42 OF 50 CAPLUS COPYRIGHT 2007 ACS on STN  
TI Acetylene-terminated aromatic enyne resins

L5 ANSWER 43 OF 50 CAPLUS COPYRIGHT 2007 ACS on STN  
TI Alkylation of enamines by 5-halo-3-en-1-ynes

L5 ANSWER 44 OF 50 CAPLUS COPYRIGHT 2007 ACS on STN  
TI Unusual complexes formed by reaction of diiron nonacarbonyl with 1-ene-3-yne molecules

L5 ANSWER 45 OF 50 CAPLUS COPYRIGHT 2007 ACS on STN  
TI Adducts of sulfonyl iodides with acetylenes

L5 ANSWER 46 OF 50 CAPLUS COPYRIGHT 2007 ACS on STN  
TI Rapid micromethod for location of eneyne and  $\alpha$ -hydroxy conjugated diene systems in straight-chain compounds

L5 ANSWER 47 OF 50 CAPLUS COPYRIGHT 2007 ACS on STN  
TI Evaluation of commercial chamomile preparations. Determination and stability of the dicyclic enyne ether and chamazulene in chamomile preparations

L5 ANSWER 48 OF 50 CAPLUS COPYRIGHT 2007 ACS on STN  
TI Reaction of carbenes with conjugated eneyne compounds

L5 ANSWER 49 OF 50 CAPLUS COPYRIGHT 2007 ACS on STN  
TI Synthesis of eneynes by the method of exhaustive methylation

L5 ANSWER 50 OF 50 CAPLUS COPYRIGHT 2007 ACS on STN  
TI Preparation of butadiene from ethyl alcohol

=> carboxyl

73778 CARBOXYL  
740 CARBOXYLS  
L6 74189 CARBOXYL  
(CARBOXYL OR CARBOXYLS)

=> 15 and 16

L7 0 L5 AND L6

=> ?eneyne?

L8 116 ?ENEYNE?

=> 16 and 18

L9 0 L6 AND L8

=> d 15 29-39 ti

L5 ANSWER 29 OF 50 CAPLUS COPYRIGHT 2007 ACS on STN

TI Synthesis of a reactive [7.4.1]enediyne and a stable eneyne  
-allene

L5 ANSWER 30 OF 50 CAPLUS COPYRIGHT 2007 ACS on STN

TI Tandem Eneyne Allene-Radical Cyclization via [3,3] Sigmatropic  
Rearrangements

L5 ANSWER 31 OF 50 CAPLUS COPYRIGHT 2007 ACS on STN

TI Cyclopropyl building blocks for organic synthesis. 25.  
Palladium(0)-catalyzed coupling reactions of 2-alkoxy-1-  
ethynylcyclopropanes with aryl and ethenyl halides: preparation of  
cyclopropyl substituted ethynylarenes, eneynes and enediynes

L5 ANSWER 32 OF 50 CAPLUS COPYRIGHT 2007 ACS on STN

TI Revolverenynes: novel eneyneparacyclophanes by sequential palladium  
coupling

L5 ANSWER 33 OF 50 CAPLUS COPYRIGHT 2007 ACS on STN

TI Tandem eneyne allene-radical cyclization via [2,3] sigmatropic  
shifts

L5 ANSWER 34 OF 50 CAPLUS COPYRIGHT 2007 ACS on STN

TI Synthesis and investigations of enetetraynes

L5 ANSWER 35 OF 50 CAPLUS COPYRIGHT 2007 ACS on STN

TI A photochemically triggered DNA cleaving agent: synthesis, mechanistic and  
DNA cleavage studies on a new analog of the anti-tumor antibiotic  
dynemicin

L5 ANSWER 36 OF 50 CAPLUS COPYRIGHT 2007 ACS on STN

TI Cyclotrimerization versus nonaromatic polyene formation in catalyzed cure  
of an arylpropargyl ether-terminated monomer

L5 ANSWER 37 OF 50 CAPLUS COPYRIGHT 2007 ACS on STN

TI Preparation of phenyl-substituted propargylic alcohol dicobalt  
hexacarbonyls and their reactions with active methylene compounds in the  
presence of acid

L5 ANSWER 38 OF 50 CAPLUS COPYRIGHT 2007 ACS on STN

TI Synthesis of a [5.5.5.5]fenestrenedione via tandem Pauson-Khand  
tetracyclization

L5 ANSWER 39 OF 50 CAPLUS COPYRIGHT 2007 ACS on STN

TI Antitumor antibiotic neocarzinostatin. Mechanism of DNA cleavage and the  
design of model system

=> d 15 37 ti fbib abs

L5 ANSWER 37 OF 50 CAPLUS COPYRIGHT 2007 ACS on STN

TI Preparation of phenyl-substituted propargylic alcohol dicobalt  
hexacarbonyls and their reactions with active methylene compounds in the  
presence of acid

AN 1992:490477 CAPLUS

DN 117:90477

TI Preparation of phenyl-substituted propargylic alcohol dicobalt  
hexacarbonyls and their reactions with active methylene compounds in the

presence of acid

AU Sun, Shouheng; Chen, Weibing; Zhang, Wenwei; Li, Dongwen; Meng, Qingjin; You, Xiaozeng

CS Coord. Chem. Inst., Nanjing Univ., Nanjing, 210008, Peop. Rep. China

SO Chinese Journal of Chemistry (1992), 10(1), 20-5  
CODEN: CJOCEV; ISSN: 1001-604X

DT Journal

LA English

OS CASREACT 117:90477

AB Eight new complexes with the formula  $[\text{PhC.tplbond.CC(OH)R}_1\text{R}_2]\text{Co}_2(\text{CO})_6$  ( $\text{R}_1 = \text{R}_2 = \text{Me}$ , cyclohexyl, Ph;  $\text{R}_1 = \text{Me}$ ,  $\text{R}_2 = \text{Ph}$ ;  $\text{R}_1 = \text{H}$ ,  $\text{R}_2 = 4\text{-BrC}_6\text{H}_4$ ,  $4\text{-ClC}_6\text{H}_4$ ,  $4\text{-FC}_6\text{H}_4$ ,  $4\text{-O}_2\text{NC}_6\text{H}_4$ ) were prepared from Ph substituted propargylic alcs. and  $\text{Co}_2(\text{CO})_8$ . The reactions of these propargylic alc. complexes with active methylene compds., 2,4-pentanedione or Et acetoacetate, or an acid ( $\text{HBF}_4(40\%) + \text{P}_2\text{O}_5$  (in excess) or  $\text{BF}_3\cdot\text{Et}_2\text{O}$ ) at room temperature in  $\text{CH}_2\text{Cl}_2$  were investigated. From the 1-alkyl substituted tertiary propargylic alc. complexes, three new conjugated eneyne complexes produced by intramol. dehydration in 82-95% yield. On the other hand, four new alkylated complexes were obtained with satisfactory yields (44-66%) from the secondary propargylic alc. complexes. The influence of other acids, phosphorus pentoxide and polyphosphoric acid, on both dehydration reaction and alkylated reaction was also studied.

=> logoff hold

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	20.10	55.60
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-0.78	-2.34

SESSION WILL BE HELD FOR 120 MINUTES  
STN INTERNATIONAL SESSION SUSPENDED AT 08:27:44 ON 23 MAY 2007

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1623PAZ

PASSWORD:

\* \* \* \* \* RECONNECTED TO STN INTERNATIONAL \* \* \* \* \*

SESSION RESUMED IN FILE 'CAPLUS' AT 08:46:48 ON 23 MAY 2007

FILE 'CAPLUS' ENTERED AT 08:46:48 ON 23 MAY 2007

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COST IN U.S. DOLLARS	SINCE FILE	TOTAL
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FULL ESTIMATED COST	20.10	55.60
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
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CA SUBSCRIBER PRICE	-0.78	-2.34

=> file reg

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
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FULL ESTIMATED COST	20.10	55.60

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-0.78	-2.34

FILE 'REGISTRY' ENTERED AT 08:47:02 ON 23 MAY 2007  
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STRUCTURE FILE UPDATES: 22 MAY 2007 HIGHEST RN 935655-41-7  
DICTIONARY FILE UPDATES: 22 MAY 2007 HIGHEST RN 935655-41-7

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TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=> e 7-phenyl-2,4-heptadienoic acid/cn

E1	1	7-PHENYL-2,4,6-HEPTATRIENOIC ACID/CN
E2	1	7-PHENYL-2,4,6-HEPTATRIENOYLHYDROXAMIC ACID/CN
E3	0 -->	7-PHENYL-2,4-HEPTADIENOIC ACID/CN
E4	1	7-PHENYL-2,5-HEPTANEDIONE/CN
E5	1	7-PHENYL-2,5-NORBORNADIENE/CN
E6	1	7-PHENYL-2-(4-(PHENYLETHYNYL)THIOPHEN-2-YL)-N-(2-(THIOPHEN-2-YL)ETHYL)IMIDAZO(1,2-A)PYRIDIN-3-AMINE/CN
E7	1	7-PHENYL-2-ANILINO-1-PHENYL-1,6-NAPHTHYRIDIN-4(1H)-ONE/CN
E8	1	7-PHENYL-2-ANILINO-1-PHENYL-1,8-NAPHTHYRIDIN-4(1H)-ONE/CN
E9	1	7-PHENYL-2-HEPTANONE/CN
E10	1	7-PHENYL-2-NAPHTHALENOL/CN
E11	1	7-PHENYL-2-NAPHTHOL/CN
E12	1	7-PHENYL-2-OCTANONE/CN

=> e1

L10 1 "7-PHENYL-2,4,6-HEPTATRIENOIC ACID"/CN

=> d l10

L10 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN

RN 6460-62-4 REGISTRY

ED Entered STN: 16 Nov 1984

CN 2,4,6-Heptatrienoic acid, 7-phenyl- (7CI, 8CI, 9CI) (CA INDEX NAME)

OTHER NAMES:

CN 6-Phenyl-1,3,5-hexadiene-1-carboxylic acid

CN 7-Phenyl-2,4,6-heptatrienoic acid

CN Phenylbutadieneacrylic acid

MF C13 H12 O2

CI COM

LC STN Files: BEILSTEIN\*, CA, CAOLD, CAPLUS, CASREACT, CHEMLIST, TOXCENTER,  
USPAT2, USPATFULL  
(\*File contains numerically searchable property data)

Ph-CH=CH-CH=CH-CH=CH-CO<sub>2</sub>H

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

18 REFERENCES IN FILE CA (1907 TO DATE)  
2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
18 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
3 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION

FULL ESTIMATED COST

7.80	63.40
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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION

CA SUBSCRIBER PRICE

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FILE 'CAPLUS' ENTERED AT 08:48:31 ON 23 MAY 2007

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FILE COVERS 1907 - 23 May 2007 VOL 146 ISS 22

FILE LAST UPDATED: 22 May 2007 (20070522/ED)

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=> 110/prep

18 L10

4406710 PREP/RL

L11

11 L10/PREP

(L10 (L) PREP/RL)

=> d 111 5-11 ti fbib abs

L11 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

TI Preparation of arylalkanoylhydroxamic acids as histone deacetylase inhibitors for treatment of cancer, hematological disorders, and genetic related metabolic disorders

AN 2002:755255 CAPLUS

DN 137:262851

TI Preparation of arylalkanoylhydroxamic acids as histone deacetylase inhibitors for treatment of cancer, hematological disorders, and genetic



related metabolic disorders  
 IN Lan-Hargest, Hsuan-yin; Kaufman, Robert J.; Wiech, Norbert L.  
 PA USA  
 SO U.S. Pat. Appl. Publ., 20 pp.  
 CODEN: USXXCO  
 DT Patent  
 LA English  
 FAN.CNT 8

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PATENT FAMILY INFORMATION:  
 FAN 2002:754352

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FAN	2004:701812				
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PI	US 2004167184	A1	20040826	US 2003-715377	20031119
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	US 2002143037	A1	20021003	US 2001-25947	20011226
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OS MARPAT 137:262851

AB Title compds. AY1LY2C(:X1)N(R1)X2R2 (I) [wherein A = (un)substituted (hetero)cycloalkyl, (hetero)cycloalkenyl, (hetero)aryl; X1 and X2 = independently O or S; Y1 and Y2 = independently CH2, O, S, NRa, NRaCO2, OCONRa, NRaCONRb, CO2, or OCO2; or Y1 = a bond; Ra and Rb = independently H, (hydroxy)alkyl, alkenyl, alkynyl, alkoxy, OH, or haloalkyl; L = (un)substituted straight hydrocarbon chain optionally containing at least one double and/or triple bond and optionally interrupted by O, NRg, NRgCO2, OCONRg, NRgCONRh, OCO, CO2, or OCO2; Rg and Rh = independently H, (hydroxy)alkyl, alkenyl, alkynyl, alkoxy, OH, or haloalkyl; R1 = H, (hydroxy)alkyl, alkenyl, alkynyl, alkoxy, OH, haloalkyl, or an amino protecting group; R2 = H, (hydroxy)alkyl, haloalkyl, or hydroxy protecting group; or salts thereof] where prepared with Zn-binding moieties, such as hydroxamic acid groups, for inhibiting histone deacetylation activity in cells. For example, Et (trans)-cinnamate was treated with MeMgI in anhydrous ether to give 4-phenyl-2-methyl-3-buten-2-ol, which was converted to 3-methyl-5-phenyl-2,4-pentadienal using PO3Cl in DMF. Oxidation of the aldehyde to the acid with aqueous AgNO3 in EtOH, followed by addition of HONH2•HCl in the presence of TEA and iso-Bu chloroformate afforded 3-methyl-5-phenyl-2,4-pentadienoylhydroxamic acid (II). Test compds. of

the invention showed potent inhibition of histone deacetylase with IC50 values in the low  $\mu\text{M}$  range; e.g. two test compds. showed IC50 values of 1.7  $\mu\text{M}$  and 1.9  $\mu\text{M}$ . Histone deacetylase inhibition can repress gene expression, including expression of genes related to tumor suppression. Thus, I provide an alternate route for treating cancer, hematol. disorders, e.g., hemoglobinopathies, and genetic related metabolic disorders, e.g., cystic fibrosis and adrenoleukodystrophy (no data).

L11 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

TI Preparation of arylalkanoic acids and hydroxamic acids as histone deacetylase inhibitors for treatment of cancer, hematological disorders, and genetic related metabolic disorders

AN 2002:755220 CAPLUS

DN 137:262850

TI Preparation of arylalkanoic acids and hydroxamic acids as histone deacetylase inhibitors for treatment of cancer, hematological disorders, and genetic related metabolic disorders

IN Lan-Hargest, Hsuan-yin; Kaufman, Robert J.; Wiech, Norbert L.

PA USA

SO U.S. Pat. Appl. Publ., 19 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 8

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PATENT FAMILY INFORMATION:

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OS MARPAT 137:262850					
AB Title compds. AY1LY2C(:X1)X2 (I) [wherein A = (un)substituted (hetero)cycloalkyl, (hetero)cycloalkenyl, (hetero)aryl; or A = (un)substituted hydrocarbon chain interrupted by O, S, NRa, CO, NRaSO2,					

SO<sub>2</sub>NRa, NRaCO<sub>2</sub>, OCONRa, NRaCONRb, OCO, CO<sub>2</sub>, OSO<sub>2</sub>, SO<sub>2</sub>O, or OCO<sub>2</sub>; Y1 and Y2 = independently CH<sub>2</sub>, O, S, NRc, NRcCO<sub>2</sub>, OCONRc, NRcCONRd, OCO<sub>2</sub>, or a bond; Ra, Rb, Rc, and Rd = independently H, (hydroxy)alkyl, alkenyl, alkynyl, alkoxy, OH, or haloalkyl; L = (un)substituted straight hydrocarbon chain optionally containing at least one double and/or triple bond; X1 = O or S; X2 = OR1, SR1, NR3OR1, NR3SR1, CO<sub>2</sub>R1, CHR4OR1, N:CON(R3)<sub>2</sub>, or OCHR4OCOR5; R1 and R2 = independently H, (hydroxy)alkyl, haloalkyl, or hydroxy protecting group; R3 = H, (hydroxy)alkyl, alkenyl, alkynyl, alkoxy, OH, haloalkyl, or amino protecting group; R4 = OH, (hydroxy)alkyl, or haloalkyl; R5 = (hydroxy)alkyl or haloalkyl; provided that when L = Et or Pr and X2 = OR1, then Y1 ≠ a bond and Y2 ≠ a bond; or salts thereof] where prepared with Zn-binding moieties, such as hydroxamic acid or carboxylic acid groups, for inhibiting histone deacetylation activity in cells. For example, Et (trans)-cinnamate was treated with MeMgI in anhydrous ether to give 4-phenyl-2-methyl-3-buten-2-ol, which was converted to 3-methyl-5-phenyl-2,4-pentadienal using PO<sub>3</sub>Cl in DMF. Oxidation of the aldehyde with aqueous AgNO<sub>3</sub> in EtOH afforded the desired 3-methyl-5-phenyl-2,4-pentadienoic acid (II). Test compds. of the invention showed potent inhibition of histone deacetylase with IC<sub>50</sub> values in the low μM range; e.g. two test compds. showed IC<sub>50</sub> values of 1.7 μM and 1.9 μM. Histone deacetylase inhibition can repress gene expression, including expression of genes related to tumor suppression. Thus, I provide an alternate route for treating cancer, hematol. disorders, e.g., hemoglobinopathies, and genetic related metabolic disorders, e.g., cystic fibrosis and adrenoleukodystrophy (no data).

L11 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

TI Preparation of arylalkanoic acids and hydroxamic acids as histone deacetylase inhibitors for treatment of cancer, hematological disorders, and genetic related metabolic disorders

AN 2002:754352 CAPLUS

DN 137:262849

TI Preparation of arylalkanoic acids and hydroxamic acids as histone deacetylase inhibitors for treatment of cancer, hematological disorders, and genetic related metabolic disorders

IN Lan-Hargest, Hsuan-Yin; Kaufman, Robert J.; Wiech, Nobert L.

PA Circagen Pharmaceutical, USA

SO PCT Int. Appl., 66 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 8

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	US 2002143196	A1	20021003	US 2001-812944	20010327
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PATENT FAMILY INFORMATION:

FAN 2002:755220

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PI	US 2002143052	A1	20021003	US 2001-812945	20010327
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	WO 2002076941	A3	20040212		
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				US 2001-812940	A1 20010327
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			US 2001-812944	A 20010327	
			US 2001-812945	A 20010327	
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			US 2001-812944	A 20010327	
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			US 2001-25947	A 20011226	
			WO 2002-US8836	W 20020325	

US 2003125306	A1	20030703	US 2002-318225	20021213
US 2005107348	A1	20050519	US 2001-812945	A3 20010327
US 2005171208	A1	20050804	US 2004-19303	20041223
US 2007037869	A1	20070215	US 2001-812945	A3 20010327
			US 2005-59377	20050217
			US 2001-812945	A3 20010327
			US 2006-489519	20060720
			US 2001-812944	A3 20010327
			US 2001-812945	A2 20010327
			US 2002-382075P	P 20020522
			US 2002-382077P	P 20020522
			US 2002-382089P	P 20020522
			US 2003-442175	A1 20030521
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FAN 2002:755255				
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WO 2002076941	A3	20040212		
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			WO 2002-US8836	W 20020325
US 2003083521	A1	20030501	US 2002-307321	20021202
			US 2001-812944	A3 20010327
US 2007037869	A1	20070215	US 2006-489519	20060720
			US 2001-812944	A3 20010327
			US 2001-812945	A2 20010327

US 2002-382075P	P	20020522
US 2002-382077P	P	20020522
US 2002-382089P	P	20020522
US 2003-442175	A1	20030521
US 2003-442177	A3	20030521
US 2003-442191	A1	20030521
US 2005-59377	A2	20050217
US 2005-198293	A1	20050808

FAN 2003:950833

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2003099272	A1	20031204	WO 2003-US15839	20030521
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US 2004029922	A1	20040212	WO 2003-US15839	W 20030521
US 7057057	B2	20060606	US 2003-442177	20030521
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			WO 2003-US15839	W 20030521
US 2005282890	A1	20051222	US 2005-198293	20050808
			US 2002-382089P	P 20020522
			US 2003-442177	A3 20030521

FAN 2003:950971

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2003099760	A1	20031204	WO 2003-US15996	20030521
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US 2004029903	A1	20040212	WO 2003-US15996	W 20030521
US 7193105	B2	20070320	US 2003-442175	20030521

EP 1511715	A1	20050309	US 2002-382075P	P	20020522
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PI WO 2003099789	A1	20031204	WO 2003-US15838		20030521
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PI WO 2004046104	A2	20040603	WO 2003-US36981		20031119
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	IN 2005DN02110	A	20070119	IN 2005-DN2110		20050518
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FAN	2004:701812					
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				US 2001-812940	B1	20010327

OS MARPAT 137:262849

AB Title compds. AY1LY2C(:X1)X2 (I) [wherein A = (un)substituted (hetero)cycloalkyl, (hetero)cycloalkenyl, (hetero)aryl; or A = (un)substituted hydrocarbon chain interrupted by O, S, NRa, CO, NRaSO2, SO2NRa, NRaCO2, OCONRa, NRaCONRb, OCO, CO2, OSO2, SO2O, or OCO2; Y1 and Y2 = independently CH2, O, S, NRc, NRcCO2, OCONRc, NRcCONRd, OCO2, or a bond; Ra, Rb, Rc, and Rd = independently H, (hydroxy)alkyl, alkenyl, alkynyl, alkoxy, OH, or haloalkyl; L = (un)substituted straight hydrocarbon chain optionally containing at least one double and/or triple bond; X1 = O or S; X2 = OR1, SR1, NR3OR1, NR3SR1, CO2R1, CHR4OR1, N:CON(R3)2, or OCHR4OCOR5; R1 and R2 = independently H, (hydroxy)alkyl, haloalkyl, or hydroxy protecting group; R3 = H, (hydroxy)alkyl, alkenyl, alkynyl, alkoxy, OH, haloalkyl, or amino protecting group; R4 = OH, (hydroxy)alkyl, or haloalkyl; R5 = (hydroxy)alkyl or haloalkyl; provided that when L = Et or Pr and X2 = OR1, then Y1 ≠ a bond and Y2 ≠ a bond; or salts thereof] where prepared with Zn-binding moieties, such as hydroxamic acid or carboxylic acid groups, for inhibiting histone deacetylation activity in cells. For example, Et (trans)-cinnamate was treated with MeMgI in anhydrous ether to give 4-phenyl-2-methyl-3-buten-2-ol, which was converted to 3-methyl-5-phenyl-2,4-pentadienal using PO3Cl in DMF. Oxidation of the aldehyde with aqueous AgNO3 in EtOH afforded the desired 3-methyl-5-phenyl-2,4-pentadienoic acid (II). Test compds. of the invention showed potent inhibition of histone deacetylase with IC50 values in the low μM range; e.g. two test compds. showed IC50 values of 1.7 μM and 1.9 μM. Histone deacetylase inhibition can repress gene expression, including expression of genes related to tumor suppression. Thus, I provide an alternate route for treating cancer, hematol. disorders, e.g., hemoglobinopathies, and genetic related metabolic disorders, e.g., cystic fibrosis and adrenoleukodystrophy (no data).

L11 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

TI Preparation of light-sensitive compounds containing conjugated double bonds, and their photolytic transformations

AN 1975:459527 CAPLUS

DN 83:59527

TI Preparation of light-sensitive compounds containing conjugated double bonds, and their photolytic transformations

AU Voskoboinik, G. A.; Fedorov, Yu. I.; Kozlova, T. P.; Ryabov, A. V.

CS Gor'k. Gos. Univ. im. Lobachevskogo, Gorki, USSR

SO Izvestiya Vysshikh Uchebnykh Zavedenii, Khimiya i Khimicheskaya Tekhnologiya (1974), 17(6), 861-4

CODEN: IVUKAR; ISSN: 0579-2991

DT Journal

LA Russian

AB Light-sensitive condensation products of phenol [108-95-2] with unsatd. aliphatic and aromatic aldehydes, and esters of these reaction products were prepared, identified by uv and ir spectroscopy and the transformations, occurring in these compds. under the effect of light, were examined Crotonaldehyde, octatrienal [17609-31-3], decatetraenal [40650-87-1],



dodecapentaenal [53193-45-6], cinnamic aldehyde [104-55-2], and phenylpentadienal [13466-40-5] were prepared, and on reaction with PhOH gave condensation products, which were esterified with cinnamic acid [621-82-9], styreneacrylic acid [1552-94-9] and phenylbutadieneacrylic acid [6460-62-4].

L11 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

TI Synthesis of 5-aryl-2,4-pentadienals and 5-aryl-2,4,6-heptatrienoic acids

AN 1970:434990 CAPLUS

DN 73:34990

TI Synthesis of 5-aryl-2,4-pentadienals and 5-aryl-2,4,6-heptatrienoic acids

AU Dombrovskii, A. V.; Pribytkova, L. G.; Ganushchak, N. I.; Vengrzhankovskii, V. A.

CS Chernigov. Gos. Univ., Chernigov, USSR

SO Zhurnal Organicheskoi Khimii (1970), 6(5), 964-7

CODEN: ZORKAE; ISSN: 0514-7492

DT Journal

LA Russian

AB The reaction in the cold of XC6H4CH:CHCH:CH2 with POCl3HCONMe2 mixture in tetrahydrofuran gave 30-67% XC6H4CH:CHCH:CHCHO (I, X = H, p-Me, p-MeO, o-Cl, or p-Cl). The reaction of I with (EtO)2P(O)CHNaCO2Et gave 61-96% XC6H4CH:CHCH:CHCH:CHCO2Et which was saponified to the corresponding acid.

L11 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

TI (+)-(5S)-8-Lactone of 5-hydroxy-7-phenylhepta-2,6-dienoic acid, a natural product from *Cryptocarya caloneura*

AN 1968:29406 CAPLUS

DN 68:29406

TI (+)-(5S)-8-Lactone of 5-hydroxy-7-phenylhepta-2,6-dienoic acid, a natural product from *Cryptocarya caloneura*

AU Hlubucek, J. R.; Robertson, Alexander V.

CS Univ. Sydney, Sydney, Australia

SO Australian Journal of Chemistry (1967), 20(10), 2199-206

CODEN: AJCHAS; ISSN: 0004-9425

DT Journal

LA English

GI For diagram(s), see printed CA Issue.

AB The structure, including absolute configuration, of a new compound extracted from *C.*

*caloneura* was determined by degradation as the (+)-(5S)-8-lactone of 5-hydroxy-7-phenylhepta-2,6-dienoic acid (I). The structure was confirmed by synthesis of its racemate.

L11 ANSWER 11 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

TI Reactions with phosphinealkylenes. VIII. Novel synthesis of carboxylic acids from phosphine alkylenes

AN 1964:440194 CAPLUS

DN 61:40194

OREF 61:6945g-h, 6946a-d

TI Reactions with phosphinealkylenes. VIII. Novel synthesis of carboxylic acids from phosphine alkylenes

AU Bestmann, Hans Juergen; Schulz, Heinz

CS Tech. Hochschule, Munich, Germany

SO Ann. (1964), 674, 11-17

DT Journal

LA Unavailable

AB cf. CA 59, 10111b. Phosphine alkylenes react with chlorocarbonates by transylidation to yield carbalkoxylated derivs. which can be used in various ways for the synthesis of carboxylic acids. Ph3P:CHCH:CH2 (I) reacted with ClCO2Me (II) in the  $\gamma$ -position to the P atom. A simple spot test for Ph3P is described. All reactions were performed under N. NaNH2 from 0.5 g. Na in about 100 cc. liquid NH3 treated. with 22 millimoles appropriate [RCH2PPh3]Cl (III), the NH3 evaporated, the residue

refluxed 10 min. with 100 cc. dry C<sub>6</sub>H<sub>6</sub>, treated dropwise with 0.01 mole suitable chloroformate in 50 cc. dry C<sub>6</sub>H<sub>6</sub>, and filtered from the III (80-100%), and the residue from the filtrate recrystd. yielded the corresponding R(R'O<sub>2</sub>C)C:PPh<sub>3</sub> (IV). In this manner were prepared the following IV (R' = Me) (R, m.p., and % yield given): H, 164° (AcOEt), 80; Me, 145° (AcOEt), 95; Et, 125° (AcOEt-petr. ether), 88; Pr (V), 105° (C<sub>6</sub>H<sub>6</sub>-petr. ether), 96; Ph (VI), 155° (AcOEt), 80; cyclohexyl, -(oil), 75. VI (1.00 g.) and 10 cc. 20% KOH in 1:1 MeOH:H<sub>2</sub>O refluxed 2 hrs., filtered from Ph<sub>3</sub>PO, and acidified with 2N H<sub>2</sub>SO<sub>4</sub> yielded 0.32 g. PhCH<sub>2</sub>CO<sub>2</sub>H, m. 76°. The yield from 17.4 g. hexahydrobenzyltriphenylphosphonium bromide treated with 2.16 g. ClCO<sub>2</sub>Et and the oily product saponified gave 1.9 g. cyclohexylacetic acid, b<sub>3</sub> 110-15°, m. 30°. [PrPPh<sub>3</sub>]Br (8.8 g.) converted to the yield, treated with II, and filtered, the filtrate refluxed 10 hrs. with 1.06 g. BzH, and the product refluxed 2 hrs. with 40 cc. KOH in 1:1 H<sub>2</sub>O-MeOH yielded 1.25 g. trans-PhCH:CEtCO<sub>2</sub>H, m. 105-6° (aqueous AcOH). V (2.00 g.) and 0.56 cc. BzH in 100 cc. dry AcOEt refluxed 8 hrs. yielded 0.78 g. trans-PhCH:CPrCO<sub>2</sub>H, needles, m. 93°. V (2.26 g.) and 0.71 cc. PhCH:CHCHO in 120 cc. dry AcOEt refluxed 24 hrs. gave similarly 0.87 g. PhCH:CHCH:CPrCO<sub>2</sub>H, needles, m. 145-6° (aqueous AcOH). PH<sub>3</sub>P:CMcCO<sub>2</sub>Et (21.7 g.) in C<sub>6</sub>H<sub>6</sub> refluxed 2 hrs. with 6.0 g. BzCH<sub>2</sub>Br, filtered, concentrated to half-volume, refluxed 2 hrs. with 20 cc. MeI, filtered from 10.2 g. [MePPh<sub>3</sub>] I, and distilled gave 3.6 g. BzCH:CMcCO<sub>2</sub>Et, b<sub>0.4</sub> 160-5°; 2,4-dinitrophenylhydrazone, red, m. 149-50° (MeOH or AcOEt). [Ph<sub>3</sub>PCH<sub>2</sub>CH:CH<sub>2</sub>]Br (8.8 g.) converted to I, treated with 0.77 g. II, decanted from the oily precipitate, and evaporated, and the red oily product refluxed 2 hrs. with 50 cc. 2N NaOH in 1:1 H<sub>2</sub>O-MeOH gave 0.32 g. MeCH:CHCO<sub>2</sub>H, m. 71°; dicyclohexylamine salt m. 127°. The oily salt from a similar run refluxed 20 hrs. with 0.71 cc. BzH and refluxed 20 hrs. and worked up in the usual manner yielded 0.25 g. PhCH:CHCH:CHCO<sub>2</sub>H, m. 136-40°. A similar run with 1.32 g. PhCH:CHCHO during 10 hrs. gave 0.57 g. Ph(CH:CH)CO<sub>2</sub>H, m. 189-90° (becoming clear at 198°); also obtained in 50% yield from PH<sub>3</sub>P:CHCH:CHCO<sub>2</sub>Me with PhCH:CHCHO. Ph<sub>3</sub>P with p-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>Cl yields [p-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>PPh<sub>3</sub>]Cl which is converted by alkali to the deep red, stable p-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>CH:PPh<sub>3</sub>. A 2% solution of p-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>Cl in C<sub>6</sub>H<sub>6</sub> applied to filter paper, a few drops of the solution to be tested for Ph<sub>3</sub>P added, and the paper heated at 100-20° for a few min. and then treated with a drop of dilute aqueous NaOH gave a red color in the presence of Ph<sub>3</sub>P.

=> logoff hold

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
45.49	108.89

FULL ESTIMATED COST

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SINCE FILE	TOTAL
ENTRY	SESSION
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LOGINID:SSSPTA1623PAZ

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COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	45.49	108.89
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-5.46	-7.80

=> file reg

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	45.49	108.89
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-5.46	-7.80

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=> logoff hold

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.90	109.79
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-7.80

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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.90	109.79

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-7.80

=> d his

(FILE 'HOME' ENTERED AT 05:48:30 ON 23 MAY 2007)

FILE 'REGISTRY' ENTERED AT 05:49:15 ON 23 MAY 2007

E HEXANOIC ACID, 6-((1-METHYL-5-NITRO-1H-IMIDAZOL-2-YL)THIO)-/  
L1 3914 \E3  
L2 1 E3  
E 7-PHENYL-5-HEXENOIC ACID/CN  
L3 1 E2

FILE 'CAPLUS' ENTERED AT 07:52:49 ON 23 MAY 2007

L4 2 L3

FILE 'REGISTRY' ENTERED AT 08:16:41 ON 23 MAY 2007

E 7-PHENYLHEPTENOIC ACID  
E 7-PHENYL HEPTENOIC ACID/CN  
E 7-PHENYLHEPTENOIC ACID/CN  
E 7-PHENYL-2-HEPTENOIC ACID/CN  
E 7-PHENYL-2-OCTENOIC ACID/CN

FILE 'CAPLUS' ENTERED AT 08:22:52 ON 23 MAY 2007

L5 50 ENEYNE  
L6 74189 CARBOXYL  
L7 0 L5 AND L6  
L8 116 ?ENEYNE?  
L9 0 L6 AND L8

FILE 'REGISTRY' ENTERED AT 08:47:02 ON 23 MAY 2007

E 7-PHENYL-2,4-HEPTADIENOIC ACID/CN  
L10 1 E1

FILE 'CAPLUS' ENTERED AT 08:48:31 ON 23 MAY 2007

L11 11 L10/PREP

FILE 'REGISTRY' ENTERED AT 09:48:22 ON 23 MAY 2007

=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	1.35	110.24

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
CA SUBSCRIBER PRICE	ENTRY	SESSION
	0.00	-7.80

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 experimental property data in the original document. For information  
 on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

```
=> e 2,4,6,8-Nonatetraenoic acid, 2-cyano-9-phenyl-, (all-E)-/cn
E1      1      2,4,6,8-NONATETRAENOIC ACID, 2-CYANO-9-(2-THIENYL)-, ETHYL E
          STER/CN
E2      1      2,4,6,8-NONATETRAENOIC ACID, 2-CYANO-9-PHENYL-/CN
E3      1 --> 2,4,6,8-NONATETRAENOIC ACID, 2-CYANO-9-PHENYL-, (ALL-E)-/CN
E4      1      2,4,6,8-NONATETRAENOIC ACID, 2-CYANO-9-PHENYL-, BUTYL ESTER/
          CN
E5      1      2,4,6,8-NONATETRAENOIC ACID, 2-CYANO-9-PHENYL-, ETHYL ESTER/
          CN
E6      1      2,4,6,8-NONATETRAENOIC ACID, 2-CYANO-9-PHENYL-, METHYL ESTER
          /CN
E7      1      2,4,6,8-NONATETRAENOIC ACID, 2-FLUORO-9-(4-METHOXY-2,3,6-TRI
          METHYLPHENYL)-3,7-DIMETHYL-, ETHYL ESTER, (ALL-E)-/CN
E8      1      2,4,6,8-NONATETRAENOIC ACID, 2-FLUORO-9-(4-METHOXY-2,3,6-TRI
          METHYLPHENYL)-3,7-DIMETHYL-, ETHYL ESTER, (Z,E,E,E)-/CN
E9      1      2,4,6,8-NONATETRAENOIC ACID, 2-FLUORO-9-(4-METHOXY-2,3,6-TRI
          METHYLPHENYL)-3,7-DIMETHYL-, ETHYL ESTER, (Z,E,E,Z)-/CN
E10     1      2,4,6,8-NONATETRAENOIC ACID, 2-FLUORO-9-(4-METHOXY-2,5-DIMET
          HYL-1,3-CYCLOHEXADIEN-1-YL)-3,7-DIMETHYL-, ETHYL ESTER, (ALL
          -E)-/CN
E11     1      2,4,6,8-NONATETRAENOIC ACID, 2-METHOXY-9-PHENYL-, ETHYL ESTE
          R/CN
E12     1      2,4,6,8-NONATETRAENOIC ACID, 2-METHYL-9-PHENYL-, METHYL ESTE
          R, (2E,4E,6E,8E)-/CN
```

```
=> e3
L12      1 "2,4,6,8-NONATETRAENOIC ACID, 2-CYANO-9-PHENYL-, (ALL-E)-"/CN
```

=> file caplus	SINCE FILE	TOTAL
COST IN U.S. DOLLARS	ENTRY	SESSION
FULL ESTIMATED COST	5.40	115.64

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-7.80

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=> d l12 ti fbib abs it  
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=> 12  
 L13 1466966 12

=> l12  
 L14 1 L12

=> d l14 ti fbib abs it

L14 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN  
 TI Structural effect in cross conjugative systems. IV. Properties of  $\alpha$ -carboxyphenylpolyenic cyanides and the quantum chemical calculation of orbital energy and bond order  
 AN 1982:180289 CAPLUS  
 DN 96:180289  
 TI Structural effect in cross conjugative systems. IV. Properties of  $\alpha$ -carboxyphenylpolyenic cyanides and the quantum chemical calculation of orbital energy and bond order  
 AU Liang, Desheng; Lai, Chugen; Chiang, Mingchien  
 CS Inst. Chem., Acad. Sin., Shanghai, Peop. Rep. China  
 SO Fenzi Kexue Xuebao (1981-1982) (1981), 1(1), 17-30  
 CODEN: FKXUDX; ISSN: 0253-3677  
 DT Journal  
 LA Chinese  
 AB all-trans-Ph(CH:CH)<sub>n</sub>CH:C(CN)CO<sub>2</sub>H (I) are prepared and their UV and mass spectra are observed. The MO,  $\pi$ -energy differences, and  $\pi$ -bond orders of I are calculated by CNDO/2. The properties of I are correctly calculated by using the extended form of the homologous equation for the corresponding linear conjugated system ( $\omega$ -phenylpolyenic nitriles) with an  $\alpha$ -CO<sub>2</sub>H group substituent. Cross-conjugated systems may be generally treated by allowing 1 of the 2 branches to become the terminal group of a linear conjugated system while the other branch becomes the substituent.

IT Conjugation  
     (cross-, in  $\alpha$ -carboxy(phenyl)polyolefinic nitriles, MO calcns.  
     and)

IT Molecular orbital  
     (for cross-conjugated  $\alpha$ -carboxy(phenyl)polyolefinic nitriles)

IT Resonance  
     (in  $\alpha$ -carboxy( $\omega$ -phenyl)polyolefinic nitriles)

IT Mass spectra  
     (of  $\alpha$ -carboxy( $\omega$ -phenyl)polyolefinic nitriles)

IT Homologous series  
     (of  $\alpha$ -carboxy( $\omega$ -phenyl)polyolefinic nitriles and related  
     linear conjugated systems, MO calcn. of)

IT Ultraviolet and visible spectra  
     (of  $\alpha$ -carboxy( $\omega$ -phenyl)polyolefinic nitriles, MO calcn.  
     and)

IT Bond order  
     (poly-, in cross-conjugated  $\alpha$ -carboxy(phenyl)polyolefinic  
     nitriles and related linear conjugated systems)

IT Stabilization energy  
     (resins, in cross-conjugated  $\alpha$ -carboxy(phenyl)polyolefinic  
     nitriles)

IT Carboxyl group  
     ( $\alpha$ -, effect of, on bond order and UV of  $\omega$ -  
     phenylpolyolefinic nitriles)

IT Nitriles, properties  
     RL: PRP (Properties)  
     ( $\alpha$ -carboxy substituted  $\omega$ -phenylpolyenic, MO calcns. of)

IT Unsaturated compounds  
     RL: PRP (Properties)  
     (cross-conjugated, MO calcn. of UV and other properties of)

IT Energy level excitation  
     (electronic, of  $\alpha$ -carboxy( $\omega$ -phenyl)polyolefinic nitriles  
     and related linear conjugated systems, MO calcn. of)

IT 100-47-0, properties  
     RL: PRP (Properties)  
     (UV of, MO calcn. of)

IT 65-85-0, properties   93-58-3   98-86-2, properties   100-52-7, properties  
     140-10-3, properties   1885-38-7   14378-06-4   81620-80-6  
     RL: PRP (Properties)  
     (bond order and UV of, MO calcn. of)

IT 81620-81-7P 81620-82-8P   81620-83-9P  
     RL: SPN (Synthetic preparation); PREP (Preparation)  
     (preparation and UV and bond order of, MO calcn. of)

IT 10576-63-3P   28010-12-0P   53649-66-4P   81620-77-1P   81620-78-2P  
     81620-79-3P  
     RL: SPN (Synthetic preparation); PREP (Preparation)  
     (preparation and bond order and UV of, MO calcn. of)

=> 81620-82-8

REGISTRY INITIATED

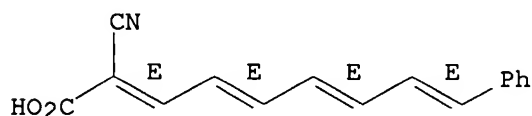
Substance data SEARCH and crossover from CAS REGISTRY in progress...

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L16 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN  
IT 81620-82-8P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and UV and bond order of, MO calcn. of)  
RN 81620-82-8 CAPLUS  
CN 2,4,6,8-Nonatetraenoic acid, 2-cyano-9-phenyl-, (all-E)- (9CI) (CA INDEX  
NAME)

Double bond geometry as shown.



=>  
=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	17.14	139.35
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
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DICTIONARY FILE UPDATES: 22 MAY 2007 HIGHEST RN 935655-41-7

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experimental property data in the original document. For information  
on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=> e 2,4,6-heptatrienoic acid, 2-cyano-7-phenyl-/cn

E1	1	2,4,6-HEPTATRIENOIC ACID, 2-CYANO-7-N-METHYLANILINO-, METHYL ESTER/CN
E2	1	2,4,6-HEPTATRIENOIC ACID, 2-CYANO-7-P-SULFAMOYLANILINO-, MET HYL ESTER/CN
E3	1 -->	2,4,6-HEPTATRIENOIC ACID, 2-CYANO-7-PHENYL-/CN
E4	1	2,4,6-HEPTATRIENOIC ACID, 2-CYANO-7-PHENYL-, (E,E,E)-/CN



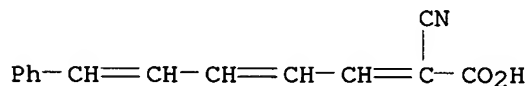
E5 1 2,4,6-HEPTATRIENOIC ACID, 2-CYANO-7-PHENYL-, BUTYL ESTER/CN  
 E6 1 2,4,6-HEPTATRIENOIC ACID, 2-CYANO-7-PHENYL-, COMPD. WITH (R)  
 -2-AMINO-1-BUTANOL (1:1)/CN  
 E7 1 2,4,6-HEPTATRIENOIC ACID, 2-CYANO-7-PHENYL-, COMPD. WITH (S)  
 -A-METHYL-1-NAPHTHALENEMETHANAMINE (1:1)/CN  
 E8 1 2,4,6-HEPTATRIENOIC ACID, 2-CYANO-7-PHENYL-, COMPD. WITH (S)  
 -A-METHYLBENZENEMETHANAMINE (1:1)/CN  
 E9 1 2,4,6-HEPTATRIENOIC ACID, 2-CYANO-7-PHENYL-, COMPD. WITH (S)  
 -N,N,N-TRIMETHYL-4-(4-(((4-(OCTADECYLOXY)-1-((OCTADECYLOXY)C  
 ARBONYL)-4-OXOBUTYL)AMINO)CARBONYL)PHENOXY)-1-BUTANAMINIUM B  
 ROMIDE (1:1)/CN  
 E10 1 2,4,6-HEPTATRIENOIC ACID, 2-CYANO-7-PHENYL-, COMPD. WITH .AL  
 PHA.-(1-(DIMETHYLAMINO)ETHYL)-A-PHENYLBENZENEETHANOL (  
 1:1)/CN  
 E11 1 2,4,6-HEPTATRIENOIC ACID, 2-CYANO-7-PHENYL-, COMPD. WITH 1-(  
 4-NITROPHENYL)-1,3-PROPANEDIOL (1:1)/CN  
 E12 1 2,4,6-HEPTATRIENOIC ACID, 2-CYANO-7-PHENYL-, COMPD. WITH 1-A  
 MINO-2-PROPANOL (1:1)/CN

=> e3

L17 1 "2,4,6-HEPTATRIENOIC ACID, 2-CYANO-7-PHENYL-"/CN

=> d l17

L17 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN  
 RN 126057-99-6 REGISTRY  
 ED Entered STN: 23 Mar 1990  
 CN 2,4,6-Heptatrienoic acid, 2-cyano-7-phenyl- (9CI) (CA INDEX  
 NAME)  
 MF C14 H11 N O2  
 CI COM  
 SR CA  
 LC STN Files: BEILSTEIN\*, CA, CAPLUS, TOXCENTER, USPATFULL  
 (\*File contains numerically searchable property data)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

11 REFERENCES IN FILE CA (1907 TO DATE)  
 11 REFERENCES IN FILE CAPLUS (1907 TO DATE)

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	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-8.58

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=> 117/prep

11 L17  
4406710 PREP/RL  
L18 5 L17/PREP  
(L17 (L) PREP/RL)

=> d 118 1-5 ti fbib abs

L18 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN  
TI Preparation of novel nonlinear organic materials  
AN 1992:622489 CAPLUS  
DN 117:222489  
TI Preparation of novel nonlinear organic materials  
AU Takekuni, Y.; Shouji, A.; Iwata, K.  
CS Tokyo Res. Cent., TEIJIN Ltd., Hino, 191, Japan  
SO Nonlinear Opt., Proc. Toyota Conf. Nonlinear Opt. Mater., 5th (1992), Meeting Date 1991, 249-54. Editor(s): Miyata, Seizo. Publisher: North-Holland, Amsterdam, Neth.  
CODEN: 58EMA7  
DT Conference  
LA English  
AB Chiral-amine salts of  $\alpha$ -cyanocinnamic acid derivs. with conjugated double bonds were prepared and their second harmonic generation (SHG) was investigated. Their hyperpolarizability ( $\beta$ ) was calculated by the PPP MO method and indicates that the intramol. charge transfer is influenced by the substituents at the Ph group as well as the conjugation length. To break the centrosymmetry, chiral amines were introduced by salt formation. By x-ray anal., the cyanogroups were found to point toward the same direction playing an important role in SHG.

L18 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN  
TI Organic nonlinear optical material  
AN 1991:418282 CAPLUS  
DN 115:18282  
TI Organic nonlinear optical material  
IN Takeya, Yutaka; Matsuzawa, Hiroshi; Iwata, Kaoru  
PA Teijin Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 24 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02254425	A	19901015	JP 1989-74875	19890329

AB The title nonlinear optical material is a salt or amide obtained by reacting an  $\alpha$ -cyanocarboxylic acid containing a conjugated double bond(s) with an optically active amine. The material has improved 2nd harmonic generation capability and is useful in optical switches, memories, and bistable devices.

L18 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN

TI Aromatic acid amine salt multilayer film with structural periodicity

AN 1991:193378 CAPLUS

DN 114:193378

TI Aromatic acid amine salt multilayer film with structural periodicity

IN Takeya, Yutaka; Matsuzawa, Hiroshi; Iwata, Kaoru

PA Teijin Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02193954	A	19900731	JP 1989-11861	19890123
				JP 1989-11861	19890123

OS MARPAT 114:193378

AB The multilayer film, with periodical structure in the thickness orientation, comprises C10-22 linear alkylamine salt of aromatic conjugated acid  $R(CH:CH)_lCH:C(CN)CO_2H$  [ $l = 0, 1, 2$ ;  $R =$  (substituted) aromatic residue]. Me cyanate and p-dimethylaminocinnamoyl aldehyde were treated to give 5-(4-dimethylaminophenyl)-2-cyano-2,4-pentadienoic acid (I). The solution of I and a solution of  $C_{18}H_{37}COCHNHCOC_6H_4C_{18}H_{37}CO(CH_2)_{20}(CH_2)_4NMe_3Br$  were repeatedly contacted to give the multilayer film useful for elec. materials, waveguides, optoelec. devices, etc.

L18 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN

TI (Aryl)alkylidenecyanoacetic acid salts with chiral amines as nonlinear optical materials having increased second harmonic generating ability and stability to laser light

AN 1990:216448 CAPLUS

DN 112:216448

TI (Aryl)alkylidenecyanoacetic acid salts with chiral amines as nonlinear optical materials having increased second harmonic generating ability and stability to laser light

IN Taketani, Yutaka; Matsuzawa, Hiroshi; Iwata, Kaoru

PA Teijin Ltd., Japan

SO Eur. Pat. Appl., 23 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 10

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 335641	A2	19891004	EP 1989-303013	19890328
	EP 335641	A3	19910313		
	EP 335641	B1	19940105		
	R: DE, FR, GB				
				JP 1988-72080	A 19880328
				JP 1988-118327	A 19880517
				JP 1988-288978	A 19881117
	JP 01245230	A	19890929	JP 1988-72080	19880328
	JP 01288831	A	19891121	JP 1988-118327	19880517
	JP 02138163	A	19900528	JP 1988-288978	19881117

PATENT FAMILY INFORMATION:

FAN 1990:506081

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 01300234	A	19891204	JP 1988-130090	19880530
	US 5196147	A	19930323	US 1989-329746	19890328
				JP 1988-72080	A 19880328
				JP 1988-118327	A 19880517
				JP 1988-130090	A 19880530
				JP 1988-223592	A 19880908
				JP 1988-223593	A 19880908
				JP 1988-226491	A 19880912
				JP 1988-227428	A 19880913
				JP 1988-286902	A 19881115
				JP 1988-286903	A 19881115
				JP 1988-288978	A 19881117
				JP 1988-288979	A 19881117
				JP 1988-326099	A 19881226
FAN	1990:523533				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02077025	A	19900316	JP 1988-227428	19880913
	US 5196147	A	19930323	US 1989-329746	19890328
				JP 1988-72080	A 19880328
				JP 1988-118327	A 19880517
				JP 1988-130090	A 19880530
				JP 1988-223592	A 19880908
				JP 1988-223593	A 19880908
				JP 1988-226491	A 19880912
				JP 1988-227428	A 19880913
				JP 1988-286902	A 19881115
				JP 1988-286903	A 19881115
				JP 1988-288978	A 19881117
				JP 1988-288979	A 19881117
				JP 1988-326099	A 19881226
FAN	1990:562199				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02073236	A	19900313	JP 1988-223592	19880908
	US 5196147	A	19930323	US 1989-329746	19890328
				JP 1988-72080	A 19880328
				JP 1988-118327	A 19880517
				JP 1988-130090	A 19880530
				JP 1988-223592	A 19880908
				JP 1988-223593	A 19880908
				JP 1988-226491	A 19880912
				JP 1988-227428	A 19880913
				JP 1988-286902	A 19881115
				JP 1988-286903	A 19881115
				JP 1988-288978	A 19881117
				JP 1988-288979	A 19881117
				JP 1988-326099	A 19881226
FAN	1990:562200				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02073237	A	19900313	JP 1988-223593	19880908
	US 5196147	A	19930323	US 1989-329746	19890328
				JP 1988-72080	A 19880328
				JP 1988-118327	A 19880517
				JP 1988-130090	A 19880530
				JP 1988-223592	A 19880908
				JP 1988-223593	A 19880908
				JP 1988-226491	A 19880912
				JP 1988-227428	A 19880913
				JP 1988-286902	A 19881115

JP 1988-286903	A	19881115
JP 1988-288978	A	19881117
JP 1988-288979	A	19881117
JP 1988-326099	A	19881226

FAN 1990:600998  
PATENT NO.

	KIND	DATE	APPLICATION NO.	DATE
PI	A	19900314	JP 1988-226491	19880912
	A	19930323	US 1989-329746	19890328
			JP 1988-72080	A 19880328
			JP 1988-118327	A 19880517
			JP 1988-130090	A 19880530
			JP 1988-223592	A 19880908
			JP 1988-223593	A 19880908
			JP 1988-226491	A 19880912
			JP 1988-227428	A 19880913
			JP 1988-286902	A 19881115
			JP 1988-286903	A 19881115
			JP 1988-288978	A 19881117
			JP 1988-288979	A 19881117
			JP 1988-326099	A 19881226

FAN 1991:91597  
PATENT NO.

	KIND	DATE	APPLICATION NO.	DATE
PI	A	19900523	JP 1988-286902	19881115
	A	19930323	US 1989-329746	19890328
			JP 1988-72080	A 19880328
			JP 1988-118327	A 19880517
			JP 1988-130090	A 19880530
			JP 1988-223592	A 19880908
			JP 1988-223593	A 19880908
			JP 1988-226491	A 19880912
			JP 1988-227428	A 19880913
			JP 1988-286902	A 19881115
			JP 1988-286903	A 19881115
			JP 1988-288978	A 19881117
			JP 1988-288979	A 19881117
			JP 1988-326099	A 19881226

FAN 1991:91598  
PATENT NO.

	KIND	DATE	APPLICATION NO.	DATE
PI	A	19900523	JP 1988-286903	19881115
	A	19930323	US 1989-329746	19890328
			JP 1988-72080	A 19880328
			JP 1988-118327	A 19880517
			JP 1988-130090	A 19880530
			JP 1988-223592	A 19880908
			JP 1988-223593	A 19880908
			JP 1988-226491	A 19880912
			JP 1988-227428	A 19880913
			JP 1988-286902	A 19881115
			JP 1988-286903	A 19881115
			JP 1988-288978	A 19881117
			JP 1988-288979	A 19881117
			JP 1988-326099	A 19881226

FAN 1991:91599  
PATENT NO.

	KIND	DATE	APPLICATION NO.	DATE
PI	A	19900524	JP 1988-288979	19881117
	A	19930323	US 1989-329746	19890328
			JP 1988-72080	A 19880328
			JP 1988-118327	A 19880517
			JP 1988-130090	A 19880530

JP 1988-223592	A	19880908
JP 1988-223593	A	19880908
JP 1988-226491	A	19880912
JP 1988-227428	A	19880913
JP 1988-286902	A	19881115
JP 1988-286903	A	19881115
JP 1988-288978	A	19881117
JP 1988-288979	A	19881117
JP 1988-326099	A	19881226

FAN 1991:237358

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02171731	A	19900703	JP 1988-326099	19881226
	US 5196147	A	19930323	US 1989-329746	19890328
				JP 1988-72080	A 19880328
				JP 1988-118327	A 19880517
				JP 1988-130090	A 19880530
				JP 1988-223592	A 19880908
				JP 1988-223593	A 19880908
				JP 1988-226491	A 19880912
				JP 1988-227428	A 19880913
				JP 1988-286902	A 19881115
				JP 1988-286903	A 19881115
				JP 1988-288978	A 19881117
				JP 1988-288979	A 19881117
				JP 1988-326099	A 19881226

OS MARPAT 112:216448

AB A(CR1:CH)nCH:C(CN)CO2H.B [I; R1 = H, Me; B = optically active amine; A = H, alkyl, (substituted) (hetero)aryl; n = 0-2], useful as nonlinear optical materials having increased second harmonic generating ability and stability to laser light, were prepared Thus, NCCH2CO2Me and p-dimethylaminocinnamaldehyde were stirred 40 h in aqueous NaOH at 85° followed by acidification to give 2-cyano-5-(4-dimethylaminophenyl)-2,4-pentadienoic acid. The latter in THF was treated with L-1-phenylethylamine to precipitate the 1:1 salt. The salt exhibited a second harmonic .apprx.3+ that of m-nitroaniline upon exposure to 1.06μ laser light.

L18 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN

TI A new method for the building up of polyene chains; preparation of some unsaturated aldehydes

AN 1936:61828 CAPLUS

DN 30:61828

OREF 30:8201b-i,8202a-c

TI A new method for the building up of polyene chains; preparation of some unsaturated aldehydes

AU Wittig, G.; Kethur, R.; Klein, A.; Wietbrock, R.

SO Berichte der Deutschen Chemischen Gesellschaft [Abteilung] B: Abhandlungen (1936), 69B, 2078-87

CODEN: BDCBAD; ISSN: 0365-9488

DT Journal

LA Unavailable

OS CASREACT 30:61828

AB The classical method of preparing, from an aldehyde RCHO, the "vinylene-homologous" aldehydes R(CH:CH)xCHO by condensing the RCHO with AcH or MeCH:CHCHO suffers from the disadvantage that the aldehydes formed in the condensation themselves further condense and thus give mixts. from which the desired product can be isolated only with great loss. It was thought this complication might be avoided by condensing the aldehyde with AcCO2H and decarboxylating the product, but all attempts to prepare PhCH:CHCH:CHCHO (I), e. g., from PhCH:CHCH:CHCOCO2H (heating with Cu powder or in quinoline or PhNMe2) were unsuccessful, probably because of the instability of the I. However, the following series of reactions

proved feasible:  $\text{RCHO} + \text{NCCH}_2\text{CO}_2\text{H} \rightarrow \text{RCH:C(CN)CO}_2\text{H} \rightarrow \text{RCH:CHCN}$   
 $\rightarrow \text{RCH:CHCH:NH} \rightarrow \text{RCH:CHCHO}$ . The reduction of the nitrile to the aldimide required, of course, a method in which the reducing action is confined to the nitrile group;  $\text{SnCl}_2$  in ether containing  $\text{HCl}$  fulfills this condition, hydrolysis of the intermediate  $(\text{RCH:NH.HCl})_2\text{SnCl}_4$  giving the corresponding aldehyde (Stephen, C. A. 19, 3261). In this way Stephen rapidly and quantitatively converted  $\text{PhCN}$  into  $\text{BzH}$ . The 1st vinylene homolog,  $\text{PhCH:CHCN}$ , which is readily obtained from  $\text{BzH}$  and  $\text{NCCH}_2\text{CO}_2\text{H}$ , is less easily reduced to  $\text{PhCH:CHCHO}$  by the Stephen method, although the yield is still 40%. The next homolog,  $\text{Ph(CH:CH)}_2\text{CN}$ , gives only about 10% aldehyde (I) and  $\text{Ph(CH:CH)}_3\text{CN}$  yields only traces of  $\text{Ph(CH:CH)}_3\text{CHO}$ . This is believed to be due to decrease in solubility of the  $\text{SnCl}_2\text{-HCl}$  addition

products

with increasing length of the polyene chain. To increase their solubility, and hence their reactivity, attempts were made to modify Stephen's conditions. When, instead of allowing the mixture to stand at  $15\text{-}20^\circ$ , the ether suspension of the  $\text{PhCH:CHCH:CHCN}$  addition product was heated several hrs. at  $55^\circ$ , the yield of I was 5-10%, i. e., it was decreased, if anything. The best results were obtained with  $\text{SnCl}_2$  in dioxane containing  $\text{HCl}$  at  $55^\circ$ ; the yield of I was thereby increased to 15%. Moreover, since, after removal of the I with  $\text{NaHSO}_3$  up to 50% of the original nitrile can be recovered and again subjected to reduction, the yield of I can be put roughly at 25%. The I so obtained is pure after 1 distillation and solidifies to a crystalline mass m.  $36\text{-}8^\circ$ , whereas the product obtained from  $\text{BzH}$  and  $\text{MeCH:CHCHO}$  (Kuhn and Winterstein, C. A. 23, 4682) remains oily. The identity of the 2 products was proven by mixed m. ps. of their phenylhydrazones, m.  $173.5\text{-}4^\circ$ .  $\text{Ph}_2\text{C:CHCHO}$  (II), m.  $44\text{-}5^\circ$ , obtained in 41% yield from  $\text{Ph}_2\text{C:CHMgBr}$  and  $\text{HCONMePh}$ , was converted by the above method with  $\text{NCCH}_2\text{CO}_2\text{H}$  into 5,5-diphenylpentadien-1-al (III).  $\text{PhCH:CHCH:C(CN)CO}_2\text{H}$ , obtained in 82% yield from  $\text{PhCH:CHCHO}$  and  $\text{NCCH}_2\text{CO}_2\text{H}$  refluxed in  $\text{AcOH}$ , m.  $212^\circ$  (decomposition); with reduced  $\text{Cu}$  at  $180\text{-}5^\circ$  it gives 78%  $\text{PhCH:CHCH:CHCN}$ , light yellow, b11  $158\text{-}60^\circ$ , stereoisomerized into the "solid" form, m.  $40\text{-}1.5^\circ$ , by saturating in ether with  $\text{HCl}$  gas and decomposing the resulting crystalline

yellow

$\text{HCl}$  product with water. Both forms yield the same acetamide, m.  $185.5\text{-}6.5^\circ$ , on hydrolysis with alc.  $\text{KOH}$ , and the same acid, m.  $163\text{-}4^\circ$ , on further hydrolysis. 7-Phenyl-2-cyano-2,4,6-heptatrienoic acid (3.4 g. from 4 g. I and 2.4 g.  $\text{NCCH}_2\text{CO}_2\text{H}$  in sealed tubes under  $\text{N}$  at  $100^\circ$ ), dark red, m.  $227\text{-}8^\circ$  (decomposition); 3 g. heated with reduced  $\text{Cu}$  at  $190^\circ$  gives 1.8 g. cinnamylidenecrotononitrile (mixture of stereoisomers), light yellow viscous oil, b12  $195\text{-}7^\circ$ , m.  $50\text{-}5^\circ$ , the m. p. slowly rising to  $103\text{-}7^\circ$  on recrystn. from a little  $\text{MeOH}$ . When the nitrile is treated with  $\text{HCl}$  gas in ether and the resulting orange crystals are decomposed with water, it is converted into the higher-melting (111-12°) form.  $\text{Ph}_2\text{C:CHBr}$ , m.  $46\text{-}7.5^\circ$  ( $49\text{-}50^\circ$  when pure) is obtained directly in 60% yield, without isolation of any intermediate products, from  $\text{Ph}_2\text{CMeOH}$  boiled a few min. in  $\text{AcOH}$  with a few drops of  $\text{HBr}$ , cooled rapidly, treated with cooling with  $\text{Br-AcOH}$  until the  $\text{Br}$  color persists on shaking, and brought to a boil to decompose the  $\text{Ph}_2\text{CBrCH}_2\text{Br}$ . Semicarbazone of II, m.  $217\text{-}19^\circ$ ; anilide, light yellow, m.  $98\text{-}8.8^\circ$ ; azine, bright yellow, m.  $199\text{-}9.5^\circ$ .  $\gamma$ -Phenylcinnamylidenecyanoacetic acid (88% from II and  $\text{NCCH}_2\text{CO}_2\text{H}$  refluxed in  $\text{AcOH}$ ), yellow, m.  $217\text{-}18^\circ$  (evolution of  $\text{CO}_2$ ), decarboxylated by reduced  $\text{Cu}$  at  $195^\circ$  to the acetonitrile (78% yield), b12  $226\text{-}8^\circ$ , m.  $68\text{-}9^\circ$ ; when 1.2 g. of this is heated 4-5 hrs. at  $50^\circ$  with  $\text{SnCl}_2$  dissolved in dioxane in a current of  $\text{HCl}$ , the yellow needles which sep. are treated with water at  $50\text{-}60^\circ$ , the solution is extracted with 40%  $\text{NaHSO}_3$  and the crystalline bisulfite compound is decomposed with  $\text{H}_2\text{SO}_4$  there is obtained 0.1 g. III, m.  $69.5\text{-}71^\circ$ ; it forms an orange azine, m.  $183\text{-}4^\circ$ .

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